

**WEST****Create A Case**

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Select?	Database	Query	Plural	Op	Thesaurus	Set Name
<input checked="" type="checkbox"/>	USPT	sericin	YES	ADJ	ASSIGNEE	L1
<input checked="" type="checkbox"/>	USPT	L1 and food	YES	ADJ	ASSIGNEE	L2
<input checked="" type="checkbox"/>	USPT	L1 and (food or supplement)	YES	ADJ	ASSIGNEE	L3
<input checked="" type="checkbox"/>	USPT	L3 and mineral	YES	ADJ	ASSIGNEE	L4
<input checked="" type="checkbox"/>	USPT	L1 and mineral	YES	ADJ	ASSIGNEE	L5

Please enter the case name:

---

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**Rules for naming Cases**

- Case names can only contain alphanumeric characters including underscore (\_).
- Any other special characters or punctuation characters will be automatically removed prior to saving the case.
- All white space characters will be replaced by an underscore.

Search09936045

s sericin

Items File

-----  
204 5: Biosis Previews(R)\_1969-2003/Sep W2  
80 34: SciSearch(R) Cited Ref Sci\_1990-2003/Sep W2  
5 35: Dissertation Abs Online\_1861-2003/Aug  
6 65: Inside Conferences\_1993-2003/Sep W2  
20 71: ELSEVIER BIOBASE\_1994-2003/Sep W2  
46 73: EMBASE\_1974-2003/Sep W2  
277 94: JICST-EPlus\_1985-2003/Sep W2  
2 98: General Sci Abs/Full-Text\_1984-2003/Aug  
59 144: Pascal\_1973-2003/Sep W1  
1 149: TGG Health&Wellness DB(SM)\_1976-2003/Sep W1  
71 155: MEDLINE(R)\_1966-2003/Sep W2  
11 156: ToxFile\_1965-2003/Sep W2  
6 159: Cancerlit\_1975-2002/Oct  
4 162: Global Health\_1983-2003/Aug  
1 172: EMBASE Alert\_2003/Sep W2  
1 369: New Scientist\_1994-2003/Sep W2  
542 399: CA SEARCH(R)\_1967-2003/UD=13912  
22 434: SciSearch(R) Cited Ref Sci\_1974-1989/Dec

SYSTEM:OS - DIALOG OneSearch

File 5: Biosis Previews(R) 1969-2003/Sep W2

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File 94: JICST-EPlus 1985-2003/Sep W2

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File 155: MEDLINE(R) 1966-2003/Sep W2

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\*File 155: Medline has been reloaded and accession numbers have changed. Please see HELP NEWS 155.

File 399: CA SEARCH(R) 1967-2003/UD=13912

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Alert feature enhanced for multiple files, etc. See HELP ALERT.

Set	Items	Description
S1	1094	SERICIN
S2	843	S1 NOT PY=>1999
S3	0	S2 AND COLON(W)CANCER
S4	0	S2 AND SUPPLE?
S5	624	S2 AND SILK
S6	15	S2 AND FOOD
S7	12	RD (unique items)
S8	7	S1 AND MINERAL

Your SELECT statement is:

\$.sericin

Items	File
204	5: Biosis Previews(R)_1969-2003/Sep W2
80	34: SciSearch(R) Cited Ref Sci_1990-2003/Sep W2
5	35: Dissertation Abs Online_1861-2003/Aug
6	65: Inside Conferences_1993-2003/Sep W2
20	71: ELSEVIER BIOBASE_1994-2003/Sep W2
46	73: EMBASE_1974-2003/Sep W2
277	94: JICST-EPlus_1985-2003/Sep W2
2	98: General Sci Abs/Full-Text_1984-2003/Aug
59	144: Pascal_1973-2003/Sep W1
1	149: TGG Health&Wellness DB(SM)_1976-2003/Sep W1
71	155: MEDLINE(R)_1966-2003/Sep W2
11	156: ToxFile_1965-2003/Sep W2
6	159: Cancerlit_1975-2002/Oct
4	162: Global Health_1983-2003/Aug
1	172: EMBASE Alert_2003/Sep W2
1	369: New Scientist_1994-2003/Sep W2
542	399: CA SEARCH(R)_1967-2003/UD=13912
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SYSTEM:OS - DIALOG OneSearch

File 5:Biosis Previews(R) 1969-2003/Sep W2

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File 94:JICST-EPlus 1985-2003/Sep W2

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File 155:MEDLINE(R) 1966-2003/Sep W2

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**\*File 155: Medline has been reloaded and accession numbers have changed. Please see HELP NEWS 155.**

File 399:CA SEARCH(R) 1967-2003/UD=13912

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7/9/3 (Item 3 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2003 BIOSIS. All rts. reserv.

11424937 BIOSIS NO.: 199800206269

**Silk protein, sericin, inhibits lipid peroxidation and tyrosinase activity.**

AUTHOR: Kato Norihisa(a); Sato Seiji; Yamanaka Atsushi; Yamada Hideyuki;  
Fuwa Naozumi; Nomura Masakazu

AUTHOR ADDRESS: (a)Dep. Appl. Biochem., Fac. Appl. Biol. Sci., Hiroshima  
Univ., Higashi-Hiroshima 739\*\*Japan

JOURNAL: Bioscience Biotechnology and Biochemistry 62 (1):p145-147 Jan.,  
1998

ISSN: 0916-8451

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: This study provided the first evidence for an antioxidant action  
of the silk protein **sericin** by showing that **sericin** suppressed in  
vitro lipid peroxidation. Furthermore, **sericin** was found to inhibit  
tyrosinase activity. These results suggest that **sericin** may be a  
valuable natural ingredient for **food** and cosmetic industries.

7/9/10 (Item 1 from file: 399)

DIALOG(R)File 399:CA SEARCH(R)

(c) 2003 American Chemical Society. All rts. reserv.

129008425 CA: 129(1)8425v PATENT

**Use of sericins as antioxidants and tyrosinase inhibitors**

INVENTOR(AUTHOR): Yamada, Hideyuki; Fuwa, Naozumi; Nomura, Masakazu

LOCATION: Japan,

ASSIGNEE: Seiren Co., Ltd.

PATENT: European Pat. Appl. ; EP 841065 A2 DATE: 19980513  
APPLICATION: EP 97308956 (19971107) \*JP 96296015 (19961108) \*JP 9769416  
(19970324)  
PAGES: 9 pp. CODEN: EPXXDW LANGUAGE: English CLASS: A61K-038/17A;  
A61K-038/55B; A61K-007/48B; A23L-001/03B DESIGNATED COUNTRIES: AT; BE; CH;  
DE; DK; ES; FR; GB; GR; IT; LI; LU; NL; SE; MC; PT; IE; SI; LT; LV; FI; RO  
SECTION:  
CA262004 Essential Oils and Cosmetics  
CA217XXX Food and Feed Chemistry  
CA263XXX Pharmaceuticals  
IDENTIFIERS: sericin purifn silk antioxidant tyrosinase inhibitor  
DESCRIPTORS:  
Silkworm...  
cocoon, sericin from; sericin as antioxidant and tyrosinase inhibitor  
Lipid peroxidation...  
inhibition in; sericin as antioxidant and tyrosinase inhibitor  
Silk...  
raw; sericin as antioxidant and tyrosinase inhibitor  
Antioxidants... Discoloration prevention agents... Food additives...  
Sericins... Skin-lightening cosmetics...  
sericin as antioxidant and tyrosinase inhibitor  
CAS REGISTRY NUMBERS:  
9002-10-2 inhibitors; sericin as antioxidant and tyrosinase inhibitor  
7/9/11 (Item 2 from file: 399)  
DIALOG(R)File 399:CA SEARCH(R)  
(c) 2003 American Chemical Society. All rts. reserv.

128158735 CA: 128(13)158735q PATENT  
Preparation of sericin peptide solutions for manufacturing cosmetics or  
other products  
INVENTOR(AUTHOR): Kitagawa, Junichi  
LOCATION: Japan,  
ASSIGNEE: Sinko Silk K. K.  
PATENT: Japan Kokai Tokkyo Koho ; JP 9829909 A2 ; JP 1029909 DATE:  
19980203  
APPLICATION: JP 9743470 (19970227) \*JP 9640838 (19960228)  
PAGES: 5 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: A61K-007/00A;  
A23L-001/305B; C07K-001/12B; C07K-014/435B  
SECTION:  
CA262004 Essential Oils and Cosmetics  
CA217XXX Food and Feed Chemistry  
CA263XXX Pharmaceuticals  
IDENTIFIERS: sericin peptide soln cosmetic manufg, ionic water sericin  
peptide  
DESCRIPTORS:  
Cosmetics... Drug delivery systems... Food... Peptides,biological studies  
... Sericins...  
prepn. of sericin peptide solns. for manufg. cosmetics or other  
products  
CAS REGISTRY NUMBERS:  
7732-18-5 biological studies, ionic; prepn. of sericin peptide solns. for

Your SELECT statement is:  
s sericin

Items	File
204	5: Biosis Previews(R)_1969-2003/Sep W2
80	34: SciSearch(R) Cited Ref Sci_1990-2003/Sep W2
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File 5:Biosis Previews(R) 1969-2003/Sep W2

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File 94:JICST-EPlus 1985-2003/Sep W2

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File 155:MEDLINE(R) 1966-2003/Sep W2

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File 399:CA SEARCH(R) 1967-2003/UD=13912

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Alert feature enhanced for multiple files, etc. See HELP ALERT.

7/9/3 (Item 3 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2003 BIOSIS. All rts. reserv.

11424937 BIOSIS NO.: 199800206269

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AUTHOR: Kato Norihisa(a); Sato Seiji; Yamanaka Atsushi; Yamada Hideyuki;  
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AUTHOR ADDRESS: (a)Dep. Appl. Biochem., Fac. Appl. Biol. Sci., Hiroshima  
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ISSN: 0916-8451

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7/9/10 (Item 1 from file: 399)

DIALOG(R)File 399:CA SEARCH(R)

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129008425 CA: 129(1)8425v PATENT

**Use of sericins as antioxidants and tyrosinase inhibitors**

INVENTOR(AUTHOR): Yamada, Hideyuki; Fuwa, Naozumi; Nomura, Masakazu

LOCATION: Japan,

ASSIGNEE: Seiren Co., Ltd.

PATENT: European Pat. Appl. ; EP 841065 A2 DATE: 19980513  
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A61K-038/55B; A61K-007/48B; A23L-001/03B DESIGNATED COUNTRIES: AT; BE; CH;  
DE; DK; ES; FR; GB; GR; IT; LI; LU; NL; SE; MC; PT; IE; SI; LT; LV; FI; RO  
SECTION:  
CA262004 Essential Oils and Cosmetics  
CA217XXX Food and Feed Chemistry  
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IDENTIFIERS: sericin purifn silk antioxidant tyrosinase inhibitor  
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Silkworm...  
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inhibition in; sericin as antioxidant and tyrosinase inhibitor  
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raw; sericin as antioxidant and tyrosinase inhibitor  
Antioxidants... Discoloration prevention agents... Food additives...  
Sericins... Skin-lightening cosmetics...  
sericin as antioxidant and tyrosinase inhibitor  
CAS REGISTRY NUMBERS:  
9002-10-2 inhibitors; sericin as antioxidant and tyrosinase inhibitor  
7/9/11 (Item 2 from file: 399)  
DIALOG(R)File 399:CA SEARCH(R)  
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128158735 CA: 128(13)158735q PATENT  
Preparation of sericin peptide solutions for manufacturing cosmetics or  
other products  
INVENTOR(AUTHOR): Kitagawa, Junichi  
LOCATION: Japan,  
ASSIGNEE: Sinko Silk K. K.  
PATENT: Japan Kokai Tokkyo Koho ; JP 9829909 A2 ; JP 1029909 DATE:  
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PAGES: 5 pp. CODEN: JKXXAF LANGUAGE: Japanese CLASS: A61K-007/00A;  
A23L-001/305B; C07K-001/12B; C07K-014/435B  
SECTION:  
CA262004 Essential Oils and Cosmetics  
CA217XXX Food and Feed Chemistry  
CA263XXX Pharmaceuticals  
IDENTIFIERS: sericin peptide soln cosmetic manufg, ionic water sericin  
peptide  
DESCRIPTORS:  
Cosmetics... Drug delivery systems... Food... Peptides,biological studies  
... Sericins...  
prepn. of sericin peptide solns. for manufg. cosmetics or other  
products  
CAS REGISTRY NUMBERS:  
7732-18-5 biological studies, ionic; prepn. of sericin peptide solns. for  
9/9/1 (Item 1 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
(c)2003 Japan Science and Tech Corp(JST). All rts. reserv.

05462377 JICST ACCESSION NUMBER: 03A0400112 FILE SEGMENT: JICST-E  
Deposition of bone-like apatite on silk fiber in a solution that mimics  
extracellular fluid.  
TAKEUCHI A (1); OHTSUKI C (1); MIYAZAKI T (1); TANIHARA M (1); TANAKA H  
(2); YAMAZAKI M (2)  
(1) Nara Inst. Sci. And Technol.(naist), Nara, Jpn; (2) Kyoto Prefectural  
Inst. Northern Ind., Kyoto, Jpn  
J Biomed Mater Res Pt A, 2003, VOL.65A,NO.2, PAGE.283-289, FIG.6, TBL.1,  
REF.17  
JOURNAL NUMBER: E0528BAW ISSN NO: 0021-9304  
UNIVERSAL DECIMAL CLASSIFICATION: 615.461/.466  
LANGUAGE: English COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

DESCRIPTORS: medical material; bone; apatite; silk; **sericin** ; scanning electron microscope; electron microscopy; energy dispersive X-ray spectrometry; X-ray diffraction; fibroin

IDENTIFIERS: biological material

BROADER DESCRIPTORS: material; skeleton; musculoskeletal system; phosphate **mineral** ; **mineral** (geology); animal fiber; protein fiber; fiber; natural fiber; scleroprotein; animal protein; protein; electron microscope; microscope; microscopy; observation and view; X-ray spectrometry; X-ray analysis; instrumental analysis; analysis(separation); analysis; spectrochemical analysis; X-ray scattering; electromagnetic wave scattering; scattering; diffraction; coherent scattering

9/9/2 (Item 2 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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05452189 JICST ACCESSION NUMBER: 03A0391103 FILE SEGMENT: JICST-E

**Apatite Deposition on Silk Sericin in a Solution Mimicking Body Fluid**

TAKEUCHI AKARI (1); OTSUKI CHIKARA (1); MIYAZAKI TOSHIKI (1); OGATA SHIN'ICHI (1); TANIHARA MASAO (1); TANAKA HIROMI (1); FURUTANI YOSHIAKI (1); KINOSHITA HISAO (1)

Nippon Kagakkai Koen Yokoshu, 2002, VOL.82nd, PAGE.10, FIG.1, REF.1

JOURNAL NUMBER: S0493AAY ISSN NO: 0285-7626

UNIVERSAL DECIMAL CLASSIFICATION: 549.057

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

ARTICLE TYPE: Short Communication

MEDIA TYPE: Printed Publication

ABSTRACT: Apatite-polymer hybrid has been attractive as novel bone-repairing materials with both ability of direct bone bonding and mechanical performances analogous to natural bone. Hydroxyapatite fabricated under a mimicking condition of body environment shows high biological affinity to bony tissues. We show here apatite deposition on **sericin** , one of silk proteins, under a condition mimicking body fluid. Apatite deposition was observed on the surface of **sericin** in a solution, 1.5SBF, which has ion concentrations 1.5 times those of human extracellular fluid. The apatite formation was induced when **sericin** has both high molecular weight and structure of beta-sheet. Namely, specific structure of proteins can effectively gives nucleation sites of hydroxyapatite. Furthermore, the apatite formation was enhanced by prior treatment with calcium chloride solution. These results show that **sericin** -apatite hybrids may be a hybrid material for bone repair.

Set	Items	Description
S1	1094	SERICIN
S2	843	S1 NOT PY=>1999
S3	0	S2 AND COLON(W)CANCER
S4	0	S2 AND SUPPLE?
S5	624	S2 AND SILK
S6	15	S2 AND FOOD
S7	12	RD (unique items)
S8	7	S1 AND MINERAL

**WEST**

Generate Collection

Print

L3: Entry 10 of 20

File: USPT

Dec 26, 2000

US-PAT-NO: 6165982

DOCUMENT-IDENTIFIER: US 6165982 A

TITLE: Use of sericin as antioxidants and tyrosinase inhibitors

DATE-ISSUED: December 26, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yamada; Hideyuki	Fukui			JP
Fuwa; Naozumi	Fukui-ken			JP
Nomura; Masakazu	TaKefu			JP

US-CL-CURRENT: 514/21; 252/397, 424/401, 424/538, 426/541

## CLAIMS:

What is claimed is:

1. A method for the prevention of discoloration or coloration which comprises adding an effective amount of natural sericin to tyrosine and lipid peroxide containing systems to inhibit tyrosinase or lipid peroxide activity.
2. A method for the treatment of human skin which comprises applying a sufficient amount of natural sericin to exert an antioxidizing activity or an inhibiting action on tyrosinase activity.
3. A method of providing an antioxidizing ability or an inhibitory action for tyrosinase activity comprising:  
preparing a composition containing a hydrolyzate of sericin and using the composition to provide the antioxidizing ability or the inhibitory action for tyrosinase activity.
4. A composition useful as an antioxidant or an inhibitor for tyrosinase activity which comprises as an active ingredient a sufficient amount of a hydrolyzate of natural sericin to exert an antioxidizing ability or an inhibitory action on tyrosinase activity.
5. The composition as claimed in claim 1 which is contained in a medicine.
6. The composition as claimed in claim 1 which is contained in a cosmetic.
7. The composition as claimed in claim 1 which is a discoloration inhibitor.
8. The composition as claimed in claim 6 wherein said cosmetic is a bleaching cosmetic.
9. The composition as claimed in claim 1 which is a food additive.
10. The composition as claimed in claim 1 which is contained in a food.



11. The composition as claimed in claim 1 which is contained in a quasi-drug.
12. The composition as claimed in claim 5 wherein said medicine. is a medicine for external use.
13. A composition comprising as an active ingredient a sufficient amount of a hydrolyzate of natural sericin extracted from silkworm cocoon or raw silk to exert an antioxidizing ability or an inhibitory action on tyrosinase activity.
14. A composition comprising a medicinal composition including natural sericin in an amount sufficient to impart to the medicinal composition an antioxidizing ability or an inhibitory action on tyrosinase activity.
15. A composition comprising a food composition including natural sericin in an amount sufficient to impart to the food composition an antioxidizing ability or an inhibitory action on tyrosinase activity.